traced over a forty year period during which external resources have been added to those locall- available. Fortunately, the external resources under consideration, employment and exchange opportunities and medical care and other government services, have been introduced with sufficient separation in time so that their specific relationships with population changes can be investigated.[11]

In 1932-33, Gillin observed that the Upper Barama River Caribs were relatively unaffected by external influences (1936:111). Their population size reflected the local emphasis of their adaptation. As already mentioned, it can be estimated that there were about 200 Caribs in the Upper Barama River area during 1932-33. At this time the ratio of adults to children was about one to one (1936:204). For adult classification, Gillin required males to be over twenty-one and females over eighteen (1936:205).

For the Sawari settlement in the Upper Barama River area, Gillin recorded forty-seven individuals (1936:110). Of this group, twenty-six are adults and twenty-one are children. This includes thirteen men and seven boys, fourteen women and thirteen girls. In this instance, puberty distinguishes adult from child. For some individuals, Gillin estimates their age as an aspect of general description, but he does not do this for all individuals. Consequently, little can be said regarding a more accurate age structure for this early time period.

Regarding behavioral patterns that regulate population size, Gillin reports no restraints on the sexual activity of married partners except for an abstinence of about a month after the birth of

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[837]
[836]
a child (1936:76). No adult of reproductive age seems to have remained for long outside of a marriage bond. Extramarital sexual encounters were not uncommon, and adolescents were not prevented from sexual experimentation (1936:72). The separation of sexual partners did not intervene to limit population size.

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[756]
Contraceptive measures are reported to have been familiar to both men and women (1936:73). These include "bush medicines" and "ritualistic treatments" performed by a piaiman or shaman. However, the exact species are not identified and their efficacy as well as the incidence of their use are not noted. Old women were reported to have

[887]
[847]
been experienced in inducing abortions through the use of an infusion of bush herbs and manual manipulation including the insertion of small, sharp sticks.

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Aside from these behavioral controls, there apparently were physiological factors at work. These are mentioned but their effects cannot be established. Gillin notes, for example, that it was rare for an adolescent girl to become pregnant (1936:73). Regarding this observation, Gillin suggests that temporary sterility and ineptness

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of technique may explain the lack of pregnancies. Also, the incidence of malaria, hook worm, round worm, and other parasites may have contributed to periods of sexual inactivity and temporary sterility as well as affecting the mortality of infants and others.

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In sum, for the 1932-33 period, those behavioral and physiological factors which affected population size were recorded without regard for their situational context. Still, the reproductive results seem clear: i.e., the ratio of adults to children was about one to one in

economy. The most suggestive insight into a longer familiarity with conditions of famine comes from popular stories. Cannibalism and other drastic measures in times of subsistence crises are a pronounced and recurrent theme.

It would appear that the behavioral measures designed to limit population have been practiced mainly during times of subsistence stress. Decisions regarding population control were probably made by the mother alone relative to her own circumstances.[17] The net result was a relatively limited rate of reproduction for the total population. These solutions were abandoned as subsistence stresses were alleviated by the availability of external resources. Since the introduction of employment and other market opportunities and government subventions after 1940, the Upper Barama River Carib population has not been subject to fluctuations in local resources. Even those segments of the population not directly employed have been affected. The point to emphasize is that external resources need not have been constantly available to the total population to affect the reproductive pattern of the total population. Only some access to external resources conveyed through regional networks of exchange needed to be available during times of subsistence crisis.